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Agriculture News
Yellowstone County Extension

MONTANA STATE UNIVERSITY EXTENSION

TO: Farm & Ranch Businesses

FROM: Yellowstone County Extension

New Agriculture Agent Hired

We are pleased to announce that Steve Lackman has joined our Extension staff as the new Agricultural Agent. A Billings native Steve comes to the position with a degree in Agricultural Business and a background in farming, ranching, and real estate. Steve is also active in the Big Sky Association of Leather Artists.

Please feel free to give Steve a call at 256-2828 or stop by the office. We thank you for you patience during the past months. Welcome Steve!

New Herbicides Have Special Uses

By Fabian Menalled, MSU Extension Cropland Weeds Specialist

Several new herbicides have been released into the market recently with potential use in Montana cropping systems. That's good news, since if used properly, herbicides with new modes of action can help reduce weed resistance to herbicides. The recommended weed management system generally combines use of herbicides with different modes of action, rotating crops and including additional mortality factors. As always, be sure to read and follow label directions for these products.

The new herbicides and herbicide crop options I'll review here include Bayer's new Huskie, PowerFlex by Dow, Pre-Pare by Arystra, Axial XL by Syngenta, Kixor by BASF, and Roundup-ready sugarbeets from Monsanto.

Huskie is a Bayer Crop Science herbicide, which can be used to manage several broadleaf species including kochia, prickly lettuce, wild buckwheat, mustard, Russian thistle, pigweeds, flixweed, corn gromwell, bedstraw and common lambsquarters. Because Huskie is a premix of pyrasulfotole, bromoxynil (Buctril) and a crop safener, it is a valuable tool to prevent and manage herbicide resistance. Pyrasulfotole is the first HPPD (hydroxyphenylpyruvate dioxygenase synthesis) inhibitor cereal herbicide. Bromoxynil inhibits photosynthesis at photosystem II.

Huskie can be applied in wheat, barley and triticale from the first true leaf to the emergence of the flag leaf at rates ranging from 11 to 15 ounces per acre. It is recommended to use Huskie in combinations with an AMS (ammonium sulfate) or NIS (non-Ionic Surfactant) adjuvant. Huskie can be tank-mixed with grass herbicides such as Puma, Rimfire, Axial, Silverado and Olympus as well as with dicot products including all sulfonamides (SU), Starane, WideMatch and MCPA. It is also compatible with insecticides (Warrior, Mustang Max, Sevin and Furadan) and fungicides (Tilt, Stratego, Headline, Benlate and Quilt). Recropping intervals are seven days to wheat, barley, oats, rye and triticale; four months to grain sorghum, millet and soybean; and nine months to alfalfa, canola, chickpeas, corn, dry beans, field peas, lentils, potatoes, safflower, sunflowers and sugarbeets. Other crops have a 12 month recropping interval.

PowerFlex is a Dow AgroChemical product. It recently received EPA registration for use in winter wheat. It contains pyroxsulam, a new sulfonamide herbicide that acts as an inhibitor of the acetolactate synthase enzyme (ALS) and a crop safener. PowerFlex controls common grass (wild oat, downy brome, Japanese brome, ripgut brome and cheat) as well as broadleaf weeds (kochia, prickly lettuce, wild mustard, tansy mustard, corn gromwell, catchweed bedstraw, common lambsquarters, field pennycress, tumble mustard and henbit).

In post-emergence treatments, PowerFlex can be applied in fall or spring as an easy-to-use granule formulation from the three-leaf to the jointing stage at a rate of 35 ounces per acre. While grass weed can be treated between the two leaf and two tiller stage, broadleaf weeds can be treated up to two inches tall or two inches in diameter. Rotational intervals are nine months for several crops including alfalfa, potato, corn, lentils and field peas. All crops not listed in the label have a 12 month rotational interval. PowerFlex has a seven day grazing restriction. As an ALS inhibitor herbicide, the risk of selecting resistant weed biotypes is high and producers should actively develop an herbicide resistance stewardship plan prior to using PowerFlex.

Pre-Pare, launched by Arystra, is a water dispersible granular herbicide (flucarbazone-sodium). The same active ingredient has been previously released under the trade name of Everest. When combined with glyphosate (Roundup) in a pre-plant, pre-emergence or post-emergence application, Pre-Prepare provides contact and residual soil activity for several weeds including volunteer barley, green foxtail, wild oats, downy brome, Persian darnel, Canada thistle, field pennycress and prickly lettuce. Pre-Pare is labeled to be used in both winter and spring wheat. Because Pre-Pare is another ALS inhibitor herbicide, producers should proactively develop an herbicide resistant management plan when using this product, so that they delay selection for resistant populations of weeds.

Axial XL was released in 2006 by Syngenta. Axial (pinoxaden) is a post-emergence herbicide for control of grass weeds in wheat and barley. As an ACCase (acetyl-CoA carboxylase) inhibitor, Axial differs from existing aryloxyphenoxy propionate (FOP) and cyclohexanedione (DIM) herbicides, and has been introduced as new class of herbicide (DEN). While Axial has been sold in a combi-pack together with the adjuvant Adigo, Axial XL is a premix of pinoxaden and Adigor. Our field trials showed that Axial provides excellent crop safety and weed control. Unfortunately, populations of wild oat have already been identified as resistant to Axial and other herbicides.

Kixor (saflufenacil) was introduced in early February 2008 by BASF. Saflufenacil inhibits the protoporphyrinogen oxidase (PPO) enzyme, which is in the pigment synthesis pathway causing the cell membranes to leak. Kixor can be used alone or mixed with glyphosate to manage a wide spectrum of dicot weeds, including those resistant to glyphosate and other ALS-resistant biotypes. Kixor is labeled as a pre-plant, pre-plant incorporated and pre-emergence treatment in corn and sorghum. In small grains including spring, winter and durum wheat, barley, oats, rye and triticale, Kixor can be used either as a pre-plant or pre-emergence product. Under no circumstances should Kixor be applied after crop emergence or injury will occur.

Though it is not an herbicide, the release of Roundup-ready sugarbeets has potential importance for Montana. USDA Animal and Plant Health Inspection Service (APHIS) approved the release of Roundup Ready sugarbeets, plants genetically modified to be resistant to post-emergence applications of glyphosate (Roundup). Studies have shown that applying glyphosate to Roundup Ready sugarbeets provides substantial weed control. This technology also provides flexibility, as it increases the window of herbicide application and reduces the number of required herbicide treatments when compared with traditional weed management approaches.

Soon after the release of Roundup Ready sugarbeets, a lawsuit was filed in San Francisco, Calif., asking the USDA and APHIS to conduct additional studies on the impact of this technology on various segments of society, including business as well as environmental and consumer rights. Although it is too early to know the outcome of this lawsuit, producers interested in adopting the Roundup Ready sugarbeet technology should be aware of increased risk of selecting glyphosate resistant weed biotypes. A pre-plant application of ethofumesate (Norton) has been suggested as a good step to insure that weed resistance to glyphosate is delayed. Other approaches include rotating herbicides with different mode of actions, scouting fields for weed escapes, and preventing weed seed production.

Disclosure. Common chemical and trade names are used in this publication for clarity by the reader. Inclusion of a common chemical or trade name does not imply endorsement of that particular product or brand of herbicide and exclusion does not imply non-approval.

For Fact Sheets and General Ag Information Specific to Yellowstone County,

Please refer to our web page at:

http://www.co.yellowstone.mt.gov/extension/ag/